## **CLAIMS**

## We claim:

11 . 180

5

10

- 1. A liquid pump comprising a pressure vessel with end-openings for hermetically holding a liquid therein, wherein the liquid flows from one of the end-openings to the other end-opening by utilizing a difference in a coefficient of thermal expansion of the pressure vessel and the liquid caused by heating or cooling the pressure vessel and the liquid together.
- 2. The liquid pump according to Claim 1 further comprising a heating-cooling bath for receiving the pressure vessel having sufficient heat conductibility.
- 3. The liquid pump according to Claim 1, wherein the pressure vessel generates heat by voltage and the heating is conducted by applying voltage to the pressure vessel.
- 4. The liquid pump according to Claim 1, wherein the pressure vessel is a tube having an inner diameter of about 0.5 mm or less and a length of about 10 m or more.
  - 5. The liquid pump according to Claim 2, wherein the pressure vessel is a tube having an inner diameter of about 0.5 mm or less and a length of about 10 m or more.
- 20 6. The liquid pump according to Claim 3, wherein the pressure vessel is a tube having an inner diameter of about 0.5 mm or less and a length of about 10 m or more.
  - 7. The liquid pump according to Claim 2, wherein the heating-cooling bath is any one of an air bath and a liquid bath.